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Application No.: 10/757,266
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Response to Office Action Dated May 22, 2006

LISTING OF THE CLAIMS

1-14 (Canceled)

15. (Previously Presented) A process for producing chemically cross-linked, polysaccharide agitating media comprising:

heating a homogeneous, aqueous mixture of dispersed polysaccharide molecules produced from starch and a chemical cross-linking agent to anneal the mixture whereby at normal ambient temperatures the mixture forms a solid product having a moisture content of between about 10 to about 70% by weight;

reacting the chemical cross-linking agent with the polysaccharide molecules to produce intermolecular chemical cross-linkages between the polysaccharide molecules; and

processing the solid product obtained thereby to form fragments having an apparent hardness of between about 1.0 moh and about 4.0 moh and sizes ranging between about 6.0 mm to about 100.0 mm, wherein the fragments form an agitating media.

16. (Previously Presented) A process for producing polysaccharide agitating media comprising:

providing an aqueous dispersion of polysaccharides produced from starch, the dispersion having an average amylose content ranging from between about 40% to about 90% by weight;

heating the dispersion at a temperature and for a time sufficient to form a gel;

subdividing and cooling the gel to form a solid material; and

processing the solid material to form polysaccharide fragments having an apparent hardness of between about 1.0 moh and about 4.0 moh, an average moisture content of at least about 5%, and sizes ranging between about 6.0 mm to about 100.0 mm, wherein the fragments form an agitating media.

17. (Previously Presented) The process according to claim 15, wherein reacting the chemical cross-linking agent with the polysaccharide molecules is carried out only after the mixture has formed into the solid product.

18. (Original) The process according to claim 15, wherein the starch is substantially unhydrolyzed.

19. (Original) The process according to claim 16, wherein the starch is substantially unhydrolyzed.

20. (Original) The process according to claim 15, wherein the starch has a dextrose equivalent ranging from about between 0 to 10.

21. (Original) The process according to claim 16, wherein the starch has a dextrose equivalent ranging from about between 0 to 10.

22. (Original) The process according to claim 15, wherein the starch has a dextrose equivalent ranging from about between 0 to 1.

23. (Original) The process according to claim 16, wherein the starch has a dextrose equivalent ranging from about between 0 to 1.

24. (Original) The process according to claim 15, wherein the starch is a corn starch or a wheat starch.

25. (Original) The process according to claim 16, wherein the starch is a corn starch or a wheat starch.

26. (Original) A product made by the process of claim 15.

27. (Original) A product made by the process of claim 16.

28. (Previously Presented) An isolated product comprising chemically cross-linked polysaccharide fragments or polysaccharide fragments having an average amylose content between about 45% and about 95% by weight, having a moisture content between about 5% and about 70% by weight, an apparent hardness between about 1.0 moh and about 4.0 moh, and fragment sizes ranging from between about 6.0 mm to about 100.0 mm, wherein the fragments form an agitating media.

29. (Previously Presented) The product according to claim 28, wherein the fragments comprise a starch having a dextrose equivalent ranging from about 0 to about 10.

30. (Previously Presented) The product according to claim 29, wherein the starch has a dextrose equivalent ranging from about 0 to about 1.

31. (Previously Presented) The product according to claim 28, wherein the starch is a corn starch or a wheat starch.

32. (Previously Presented) The product according to claim 28, further comprising other products for treating substances selected from the group consisting of aluminum oxide grits, silicon carbide grits, glass beads, crushed glass, steel shot, steel ball bearings, steel grit, metallic shot, metallic ball bearings, metallic grit, corncob, walnut shells, plastics, ceramic shot, ceramic ball bearings, baking soda, novaculite, silica sand, dry polishing compounds, wet polishing compounds, and polishing creams.

33-49. (Canceled)